no gross pelvic lesions. In addition to the difficulties which Doctor Schulze has pointed out, it must also be remembered that irradiation may result in damage to germ-plasm, which can manifest itself in succeeding generations. It is true that many women have had normal children after such treatments, but time only can tell if an injury will not produce some defect in the offspring of the second and third generations. It certainly has been amply demonstrated in insects and there is good evidence that it may occur also in mammals.

On the other hand, the use of radium for the treatment of functional uterine hemorrhage in women of the menopausal age is an effective and comparatively safe method of therapy. We prefer the use of radium to x-ray since it gives an opportunity to do an extensive curettage and thus definitely eliminate the possibility of an existent carcinoma of the fundus uteri. The dosage employed varies from 1,200 to 1,500 mghrs. The bleeding is immediately controlled in the vast majority of instances, although a slight show may at times persist for some days or weeks. In the few rare failures it has been necessary to perform a hysterectomy subsequently. One of my patients returned with a carcinoma of the fundus uteri seven years after radium therapy, so this possibility must also be kept in mind.

DOCTOR SCHULZE (Closing).—A careful review of the pathology, with elimination of all but those conditions due to functional endometrial changes, was, of course, made in all this group, but limitation of time did not allow of its discussion here.

In general, the results in the older women were entirely satisfactory, and many wrote that they had never felt so well. A few, however, particularly of those whose menorrhagia had not been of long standing, or very troublesome, were intensely dissatisfied with the abrupt cessation of their functional activity. In the younger women, the fact that we were entirely unable to predict what may happen with a given dose of radium, and that we are so helpless to combat the results of overtreatment, must make us hesitate to employ it, except possibly as a measure of last resort. Several of the younger women, who had had long and serious bleeding, were at first delighted with their amenorrhea, or scanty periods, and their ability to resume the normal activities of youth; yet, later, wandered from doctor to doctor in an effort to overcome sterility or dyspareunia.

The possibility of damage to germ plasm, even in the first generation, is suggested by the one hydrocephalic among the comparatively small number of pregnancies following radiation in the series, and is an additional reason for being extremely cautious in its use. We feel, therefore, that except in cases where the artificial menopause is our objective, and the patient understands thoroughly what this entails, radium treatment should not even be considered except after the failure of all other available types of therapy.

MIGRATORY LABOR IN CALIFORNIA*

By WALTER M. DICKIE, M. D.
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DURING the past ten years there has been in California a marked change in the type of casual labor which is employed on the farms and ranches of the state. Before 1927, the majority of the migratory laborers in California were Mexican, with a few Japanese, Italian-Spanish and Portuguese. In about 1928 there began to be a migration of unskilled farm labor from the Middle West to California. These people for the most part came from the eastern part of Oklahoma, northern part of Arkansas, southern part of Missouri and a few from Mississippi, Alabama, Louisiana and Texas. They are in the main whites of Anglo-American stock whose ancestors have lived for years in the hill area of the south and central United States. In 1935 a close check at the ports of entry to California shows that approximately 53,000 persons who could be classed as indigent or migratory entered the state from the 1st of January to the 1st of July. Of this number 90 per cent were white and about 10 per cent Negro.

An analysis of the reasons for the migration of this type of people to California might not be amiss. We have, first, the reasons for these people leaving their native habitat and, secondly, the need of increasing numbers of casual laborers in California.

These individuals were in their native states "share croppers" who tilled a small piece of land and divided the returns with the owner of that land. In the early part of this decade, the numerous drought seasons decreased the arable land and also the livelihood of many of the people. The amount of yearly return was further decreased by the low price of cotton, which was their main crop, and the policy on the part of the Federal Government for decreasing cotton acreage. During the same era in California, there has been a marked increase in the amount of land in truck farms and cotton acreage. At present, it is estimated that 30 per cent of the large-scale cotton farms of the United States are in California, also 60 per cent of the large-scale truck farms and 60 per cent of the large-scale fruit farms in the United States are in this state. An estimation made in 1935 by the Federal Government shows that the number of casual laborers required is approximately 50,000 in January as a minimum and approximately 200,000 in September as a maximum.

If we look into the ancestry of the majority of these people, we find them of Anglo-American stock whose families have for generations lived in the more retarded areas of the United States, whose customs, education and standard of living are far below the average for this country. We further find that they come from an area where the incidence of the communicable diseases is high, where the sanitation is poor and where the public health activities have been limited. On their migration to California they therefore brought with them a lower standard of living, endemic foci of communicable diseases and a long background of malnutrition.

Such a large group of these persons coming into the state has thrown an added burden on the local charities, the local and county health departments, the state relief agencies and on the State Department of Public Health. It has been felt that two major considerations were necessary: first, the resident population of the state must be protected as far as possible from the communicable diseases such as typhoid, smallpox and malaria that these people might bring with them; secondly, we must, as much as possible, rehabilitate these individuals especially in housing, sanitation and nutrition so

* At several meetings the public health problems involved in migratory labor settlements have been up for discussion in the California State Board of Public Health. At the editor's request, the Director of the Department has submitted the following memoranda on the subject. See also in this issue: Editorial Comment on page 74, a letter on page 131, and press clippings on page 141.

that their children and their children's children who will become future citizens of the state will have equal opportunity for a normal life under the average standards of living.

Early in 1937, the State Department of Public Health, with aid from the Federal Government, began an intensive campaign of immunization against typhoid fever among these migratories. During January, in Madera County, approximately 739 individuals were given three injections of typhoid vaccine at weekly intervals. During February, in Imperial County, approximately 1,000 individuals were similarly immunized. In March, a prospective trainee for the School of Public Health commenced immunization against typhoid fever, and has to date given 17,000 injections. Additional health officers connected with the School of Public Health will be placed in the field during the summer and fall, in order to increase the number of immunizations, as it is necessary that this work be done for our own protection.

There has been, during the past year, an effort on the part of the Federal Resettlement Administration to provide more adequate housing facilities for these migratory people. They have had in operation since January two migratory labor camps, one at Arvin, near Bakersfield, and the other at Marysville. At present they are building four or more camps, which they expect to have completed by the 1st of August. At the request of the Resettlement Administration, the State Department of Public Health made arrangements with the aid of federal funds to place public health nurses in the migratory camps. We have at present one nurse at Arvin who works not only in the established camp of the Resettlement Administration, but also in the squatters' camps of that area. She has done a great deal to instruct and help these people in child hygiene, nutrition, and home nursing care, and aiding in the control of communicable diseases among them. Too much cannot be said of the splendid coöperation that has been given by the county health departments in this work. In the last part of February, another nurse was placed in the Resettlement Administration camp at Marysville. She also has done a most excellent piece of work among these migratory peoples, and has received full coöperation from the health departments.

For the coming year, it is planned to place in the field six public health nurses and two full-time health officers to work among these migratory people. They will act in coöperation with the established county health units in promoting sanitation, adequate housing, nutrition and control of communicable diseases in the Resettlement Administration camps, the grower camps and the casual squatters' camps where these migratory people are found. Immunization for typhoid fever will be continued and immunization for diphtheria will be begun. It is hoped that further help from a nutritionist can be obtained to teach these people to cook balanced meals which will come within their income range.

These people are not residents of the state, or of the county in which they are found, and are, therefore, not entitled to hospital or medical aid from the counties, so it is necessary in cases of acute illness to prevail upon the counties to admit them for hospitalization, or to call upon the health officer or the private physicians of the community to donate their services. This activity may be considered as an emergency service, for the residence of many of these people is only temporary, and if they remain in California, they will eventually become residents of the state, when there will be no further need for this type of work.

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THE LURE OF MEDICAL HISTORY†

SARRÍA'S TREATISE ON THE CESAREAN OPERATION, 1830*

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I**

INTRODUCTION.—The two documents which are here presented as translations afford an insight into a medical problem which at one era in the history of the state attained considerable significance. This problem involved the extraction of fetuses from pregnant mothers when the latter died for various reasons, in order that baptism might be given. What rendered the situation unusually perplexing was that practically no competent medical men, or even midwives, existed who were capable of performing what is here called the cesarean operation. The only individuals with the requisite intelligence and interest in the matter were the missionaries. They encountered the situation mentioned very frequently among their neophytes, the converted Indians, of which there were many thousands. Furthermore, it was also to their interest that the spiritual needs of the white population be properly cared for.

HOW FATHER PREFECT VICENTE FRANCISCO DE SARRÍA MET THE PROBLEM

Thus we find that, during the later days of the missions, the Father Prefect, Vicente Francisco de Sarría,[1] considered the question one worthy of his devoted attention. Although himself by no means versed in medicine, he read what literature he had available, utilized a wide personal experience, and wrote out a treatise on the cesarean operation for the benefit and guidance of his followers. This

†A Twenty-Five Years Ago column, made up of excerpts from the official journal of the California Medical Association of twenty-five years ago, is printed in each issue of CALIFORNIA AND WESTERN MEDICINE. The column is one of the regular features of the Miscellany department, and its page number will be found on the front cover.

*From the Division of Physiology, University of California Medical School, Berkeley.

** In three parts.

1 Vicente Francisco de Sarría was born in 1767 at San Estévan de Echabarris, near Bilbao, Spain. He entered the Franciscan Order as a young man and came to Mexico in 1804 as a missionary. After serving five years in the College of San Fernando, he came to California in 1809, where he remained until his death in 1835. He served as missionary at San Carlos, 1809–1829, and at Soledad, 1829–1835, where he died at his post. He held the position of Prefect of the Missions, 1813–1819, and again, 1823–1830. From 1823 to 1825 he was also Father President. He is buried at San Antonio Mission. He was generally regarded as one of the best and ablest of the Franciscan missionaries.